



# ROAVR | GROUP

**Project:** 23\_PEA\_09\_61  
**Site:** Upper Barn Farm, Bicester Road, Westcott, HP18 0JX  
**Client:** Michael Crisp



Project Number	23_PEA_09_61
Report Type:	Preliminary Ecological Appraisal Report (PEAR)
Site Address:	Upper Barn Farm, Bicester Road, Westcott, HP18 0JX

Role:	Name:	Position:	Date:
Surveyor	Beth England	Ecologist	13/10/2023
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Revision History		
Date:	Version number:	Summary of changes:
24/10/2023	10	First Draft
24/10/2023	10	First Issue

Summary:	
Site Surveyed	Land at Upper Barn Farm, Bicester Road, Westcott, HP 0JX National Grid Reference: SP 7 174 180 3
Purpose & Brief	Preliminary ecological appraisal commissioned by Michael Crisp
Development Proposals	The proposed development is the replacement of an agricultural building with a two-storey dwelling and the construction of a new internal access road
Methods	Desk Study UK Habitat Classification (UKHab) survey of the site Assessment of likely significant effects as far as can reasonably and proportionally known
Confirmed Ecological Constraints	Nesting birds
Potential Ecological Constraints	Great Crested Newts
Recommendations For Further Survey Works	eDNA assessment of all ponds within 500m Production of wildlife sensitive lighting scheme
Opportunities For Ecological Enhancements	Bat boxes Bird boxes Native species planting

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## Acknowledgements:

Data referred to within this report was sourced from Natural England Department for Environment, Food and Rural Affairs Multi-Agency Geographic Information for the Countryside (DEFRA MAGIC) database, Natural England database, and through direct consultation with Buckinghamshire and Milton Keynes Environmental Records Centre (BMERC).

## Client Documents:

This report has been completed on assumption that the plans provided by the client at the time of issue of this report remain the same. A list of the documents provided by the client can be found in the table below.

*Table: Documents provided by the client as of 02/10/2023*

Plans provided by client as of xxx
Proposed site plan

## 1 Introduction

- 1.1 ROAVR Group were commissioned to undertake a Prelim Appraisal Report (PEAR) at Upper Barn Farm, Bicester Road, Westcott, HP18 0JX .
- 1.2 The survey was comprised of a desktop study, which was undertaken in October 2023 and a site survey, which was carried out by Beth England BSc (Hons), MSc. Beth has been completing preliminary ecological appraisals for over four years and regularly undertakes surveys of this scale. She has received professional training in all aspects covered in this report.
- 1.3 The methodology and results are outlined within the report. Where applicable, recommendations for suitable mitigation and ecological enhancements are provided.
- 1.4 The report is to be submitted to support a planning application to redevelop the site. Full details are available on the planning portal.
- 1.5 The information and recommendations within this report have been prepared and provided in accordance with CIEEM's Code of Professional Conduct (CIEEM, 2022).

## SITE DESCRIPTION

- 1.6 The survey site covers an area of approximately 0.5 hectares and is centred on grid reference ' SP 7174 1803 '.
- 1.7 The site is situated 2.8km NW of Waddesdon and 200m due north of the A41 in the Buckinghamshire Council - Aylesbury Area control area. The site is accessed via the A41 roadway.
- 1.8 The site is currently an agricultural building.

## DEVELOPMENT PROPOSALS

- 1.9 The site is to be redeveloped with a two-storey dwelling and a new internal access road.

## SCOPE OF WORKS

- 1.10 The aims of this assessment were to:
  - identify the likely ecological constraints associated with the proposed development;
  - identify suitable mitigation measures (if required);
  - determine whether further surveys are necessary;
  - identify opportunities for ecological enhancement;

## 2 Methodology

### DESKTOP STUDY

- 2.1 Site-specific information in relation to land designations, protected species and protected habitats within a 2km search area was sourced from DEFRA MAGIC and BMERC.
- 2.2 In order to ensure that ecological data searches were up to date, species data was screened and all data records pre-2012 was omitted from the results.
- 2.3 Results of the desktop study should be considered to be indicative only.

### UKHAB SURVEY

- 2.4 A Preliminary Ecological Appraisal, comprised of a site walkover and mapping was undertaken by Beth England on the 13/10/2023. The PEA was undertaken in line with CIEEM's 'Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017).

- 2.5 The survey was conducted from the ground. Habitats and features of importance were mapped using a GPS enabled handset.
- 2.6 A Site Habitat Map was produced in accordance with the UK Habitat Classification Manual (Butcher et al., 2020). (Appendix 3).

### PRELIMINARY ROOST ASSESSMENT (PRA)

- 2.7 A Preliminary Roost Assessment, comprised of a preliminary ground level roost assessment was undertaken by Beth England during the site survey on 13/10/2023. The PRA was undertaken in line with the Bat Conservation Trust’s ‘Bat Surveys for Professional Ecologists: Best Practice Guidelines’ (Collins, 2023).
- 2.8 The survey included an active search for bats, evidence of bats (such as droppings, feeding remains, urine splatters, oil staining, bat fur and/or scratch marks) and potential roosting features (PRFs). PRFs of trees are listed in Table 2.8.1. PRFs of built structures are listed in Table 2.8.2. The lists are not exhaustive but show examples of the most commonly used roosting features of built structures and trees.

*Table 2.8.1: Potential roosting features (PRFs) in built structures listed in Bat Conservation Trust’s ‘Bat Surveys for Professional Ecologists: Best Practice Guidelines’ (Collins, 2016).*

Potential roosting features (PRFs) in built structures	
External	Internal
<ul style="list-style-type: none"> <li>- Access/egress through windowsills, window panes and walls;</li> <li>- Behind peeling paintwork or lifted rendering;</li> <li>- Behind hanging tiles;</li> <li>- Weatherboarding;</li> <li>- Eaves;</li> <li>- Soffit boxes;</li> <li>- Fascias;</li> <li>- Lead flashing;</li> <li>- Gaps under felt (even including those of flats roofs);</li> <li>- Under tiles/slates;</li> <li>- Existing bat boxes;</li> <li>- Gaps in brickwork or stonework which provide access/egress to cavity or rubble-filled walls</li> </ul>	<ul style="list-style-type: none"> <li>- Behind wooden panelling;</li> <li>- In lintels above doors and windows;</li> <li>- Behind window shutters and curtain</li> <li>- Behind pictures, posters, furniture, peeling paintwork, peeling wallpaper, lifted plaster and boarded windows</li> <li>- Inside cupboards and in chimneys accessible from fireplaces;</li> <li>- Within attic roof voids;</li> <li>- The top of gable end or dividing wall;</li> <li>- The top of chimney breasts;</li> <li>- Ridge and hip beams and other roof beams;</li> <li>- Mortise and tenon joints;</li> <li>- All beams;</li> <li>- The junction of roof timbers, especially where ridge and hip beams meet;</li> <li>- Behind purlins;</li> <li>- Between tiles and the roof lining;</li> <li>- Under flat felt roofs</li> </ul>

Table 2.8.2: Potential roosting features (PRFs) in trees listed in Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023) Table 6.6.

<i>Table 2.8.2. PRF types that can be exploited by bats and how they form (adap. Bat Roosts in Trees, BTHK, 2018) reproduced from Table 6.6. (Collins, 2023.)</i>		
<i>PRFs formed by disease and decay</i>	<i>PRFs formed by damage</i>	<i>PRFs formed by association</i>
<ul style="list-style-type: none"> <li>● <i>Woodpecker holes</i></li> <li>● <i>Squirrel holes</i></li> <li>● <i>Knot holes</i></li> <li>● <i>Pruning cuts</i></li> <li>● <i>Tear outs</i></li> <li>● <i>Wounds</i></li> <li>● <i>Cankers</i></li> <li>● <i>Compression forks</i></li> <li>● <i>Butt rots</i></li> </ul>	<ul style="list-style-type: none"> <li>● <i>Lighting strikes</i></li> <li>● <i>Hazard beams</i></li> <li>● <i>Subsidence</i></li> <li>● <i>Cracks</i></li> <li>● <i>Shearing cracks</i></li> <li>● <i>Transverse snaps</i></li> <li>● <i>Welds</i></li> <li>● <i>Lifting bark</i></li> <li>● <i>Desiccation</i></li> <li>● <i>Fissures</i></li> <li>● <i>Frost cracks</i></li> </ul>	<ul style="list-style-type: none"> <li>● <i>Fluting</i></li> <li>● <i>Ivy</i></li> </ul>

<i>Table 2.8.2. Guidelines for assessing the suitability of trees on proposed develop sites for bats, to be applied using professional judgement.reproduced from Ta. (Collins, 2023.)</i>	
<i>Suitability</i>	<i>Description</i>
<i>NONE</i>	<i>Either no PRFs in the tree or highly unlikely to be any</i>
<i>FAR</i>	<i>Further assessment required to establish if PRFs are present tree</i>
<i>PRF</i>	<i>A tree with at least one PRF present</i>

2.9 A Site PRF Map was produced to show the location of built structures, trees and potential roosting features (PRFs). Habitats and features of importance were mapped using a GPS enabled handset.



## SUITABILITY ASSESSMENT

2.10 The likelihood of occurrence of protected ecological features and species was ranked in accordance with the criteria listed in Tables 2.10.1 and 2.10.2. Likelihood of occurrence was assessed using data collected during the desk study and after evaluation of the habitats on-site (during the site survey) as to their likelihood to provide suitability for protected species (i.e. presence of breeding, nesting, roosting, foraging, commuting and/or refuge habitat for example).

*Table 2.10.1: Criteria used to assess the likelihood of occurrence for protected ecological features and species on-site (excl. bats).*

Likelihood of occurrence	Criteria
Present	Confirmed as present during the site survey or by confirmed historical records.
High	Species are known to be present within close proximity to the site (records present). Habitats on-site are of high quality for the species and/or likely to support a large population. The site is well connected to good quality habitat within the local area.
Moderate	Species are known to be present within the local area (records present). Habitats on-site are of moderate quality for the species and/or likely to support a moderate population. The site and connected habitats do not fulfil all of the ecological requirements of the species. Suitability of habitats on-site may be limited due to disconnectivity to the wider landscape, poor to moderate habitat available within the wider locality, and/or the presence of only a small area of suitable habitat.
Low	Few or no records of the species within the local area. Habitats on-site are of poor quality for the species and/or likely to support just a few individuals. The suitability of habitats may be limited due to disturbance, isolation and/or poor quality habitat available within the wider locality. However, species presence cannot be discounted due to the national distribution of the species or the nature of on-site and surrounding habitats (if all required ecological requirements for the species are present).
Negligible	While presence cannot be absolutely discounted, the site includes limited or poor quality habitat for a particular species. Connected habitats do not fulfil the ecological requirements of the species. There are no local records and/or the site is outside the known national range of the species.

Table 2.10.2: Criteria used to assess the likelihood of occurrence (site's suitability) for bats, from Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023).

Suitability	Criteria	
	Roosting bats	Foraging / Commuting bats
Neg ligible	Negligible habitat features on-site lik to be used by roosting bats.	Negligible habitat features on-site lik to be used by commuting or foraging bats.
Low	<p>A structure with one or more potenti roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).</p> <p>A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with onl very limited roosting potential.</p>	<p>Habitat that could be used by small numbers of commuting bats but isolated ( i.e. not very well connected t the surrounding landscape by other habitat).</p> <p>Suitable, but isolated habitat that co be used by small numbers of bats for foraging.</p>
Moderate	A structure with one or more potenti roost sites that could be used by bats due to their size, shelter, protection, appropriate conditions and/or suitab surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only)	<p>Continuous habitat connected to the wider landscape that could be used t bats for commuting.</p> <p>Habitat that is connected to the wide landscape that could be used for bats foraging.</p>
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitats	<p>Continuous, high-quality habitat tha well connected to the wider landscap that is likely to be used regularly by commuting bats.</p> <p>High-quality habitat that is well connected to the wider landscape th likely to be used regularly by foraging bats.</p> <p>Site is close to and connected to know roosts.</p>

## ECOLOGICAL CONSTRAINTS AND MITIGATION

- 2.11 An evaluation of the potential ecological constraints to the proposed development and appropriate mitigation strategies was made following CIEEM's 'Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018).

## LIMITATIONS

- 2.12 The site maps shown in Appendix 3 were produced from an Ordnance Survey Tile purchased from our mapping supplier. A site walkover with a GPS enabled handset was used to inform the location and extent of existing habitats shown on the appended mapping and is as accurate as possible but some error must be allowed for without a full topographical survey.

## 3 Policy and Legislative Context

- 3.1 This section includes the legislative context of those protected other notable species that are recorded on-site, or have the potential to be present on-site. Details on specific legislation for other protected or notable species that have not been identified as being present, or having the potential to be present, are not included below.

## NATIONAL PLANNING POLICY

- 3.2 The introduction of the National Planning Policy Framework (NPPF) in March 2012 sets out the Government's planning policies for England and how these are expected to be applied in the presumption in favour of sustainable development. It sets out the Government's requirements for the planning system, only to the extent that it is relevant, proportionate and necessary to do so and is a material consideration for local planning authorities in determining applications.
- 3.3 Planning Practise Guidance is relevant covering the Natural Environment alongside the NPPF. Therefore features of ecological value should be considered in the context of conserving and enhancing the natural environment.
- 3.4 The Government's objectives for planning are to promote sustainable development, to conserve, enhance and restore the diversity of England's wildlife and geology and to contribute to rural renewal and urban renaissance.

## LOCAL PLANNING POLICY

- 3.5 This report has been commissioned in order to comply with the Buckinghamshire and Milton Keynes Biodiversity Action Plan (BAP) : Forward to 2030 (Natural Environment Partnership, 2021).

## NATIONAL AND INTERNATIONAL LEGISLATION

- 3.6 Bern Convention on the Conservation of European Wildlife and Natural Habitats (1982)
- 3.7 Convention on the Conservation of Migratory Species of Wild Animals (1983)
- 3.8 Countryside and Rights of Way Act (2000)
- 3.9 National Parks and Access to the Countryside Act (1949)
- 3.10 Natural Environment and Rural Communities Act (2006)
- 3.11 Protection of Badgers Act (1992)
- 3.12 The Conservation of Habitats and Species Regulations (2017)
- 3.13 The Convention of International Trade in Endangered Species of Wild Fauna and Flora (1975)
- 3.14 The Hedgerows Regulations (1997)
- 3.15 UK Biodiversity Action Plan (1994)
- 3.16 Wildlife and Countryside Act (1981)
- 3.17 Wild Mammals (Protection) Act (1996)

## 4 Desktop Study

### SITE DESIGNATIONS

4.1 There was one designated site within the 2km search area.

*Table 4.1.1: 1 recorded within a 2km radius of the survey site.*

Site Name	Grid Reference	Area (ha)	Approx. Closest Distance from Site (km)	Notes
Ham Home-cum-Hamgreen Woods SSSI	SP70061914	22.97	1.9	<p>An area of woodland in the predominantly agricultural clay country of north Buckinghamsh representing a fragment of the formerly extensive Bernwood Fore</p> <p>Oak predominates both as stand and coppiced trees in the canopy with maple, ash, grey willow, birch and aspen, as well as wild service tree. The understorey includes wyc elm, crab apple, hawthorn, privet, guelder rose, honeysuckle and blackthorn, the last occurring in greatest abundance in the green I flanking Hamgreen Wood and known as Oxford Lane.</p> <p>The woods harbour the largest breeding colony in the country of nationally rare black hairstreak butterfly <i>Strymonidia prunii</i>, the wood white <i>Leptidea sinapis</i> and white-letter hairstreak <i>Strymonia w-album</i> are further notable butterflies. Nightingales are among the breeding birds of the two woods.</p>

\*Data from DEFRA MAGIC and Natural England

There were four local wildlife sites within the 2km search area.

*Table 4.1.1: 1 recorded within a 2km radius of the survey site.*

Site Name	Approx. Closest Distance from Site (m)
Lower Farm Fields	396m
Railway Cutting, Westcott	1624m
ROF Westcott Morio Meadow	1764m
ROF Westcott Ridge & Furrow	1989m

\*Data from BMERC

## LOCAL HABITAT

4.2 There were more than 20 priority habitats that were formerly mapped within the 2km search area.

*Table 4.2.1: Some of the priority habitats formerly mapped within a 2km radius of the survey site.*

Habitat	Approx. Closest Distance from Site (km)
Deciduous Woodland	0.3
Lowland Meadows	0.4
Ancient & Semi-Natural Woodland	1.9
Good quality semi improved grassland	1.9
Deciduous Woodland	0.4
Deciduous Woodland	1.1
Lowland Meadows	1.9

\*Data from DEFRA MAGIC

4.3 There were 5 water bodies situated within a 500m radius of the survey site when assessed using OS mapping.

4.4 BMERC records show the following section 41 habitats within 2km of the site: Lowland meadows; Ancient woodland.

## HISTORICAL SPECIES RECORDS

- 4.5 Protected species records relating to the site and 2km search area were obtained from the BMERC as part of the desktop study. The data search contains confidential information that is not suitable for public release. Therefore, the data has not been included in the report.
- 4.6 A full list of identified species recorded within the 2km search area can be requested from BMERC.
- 4.7 The absence of identified records does not discount the presence of a species. An absence of identified records is primarily a result of a lack of survey or the non-submission of records. Furthermore, historical records of species do not confirm their current presence within an area.
- 4.8 There were records of Great Crested Newt, nationally scarce beetles, red list butterflies, badger, hedgehog, grass snake, Common and Soprano Pipistrelle Species, Brown Long-eared Bat, Daubenton's Bat, Noctule Bat, Natterer's Bat, Whiskered Bat, Bechstein's Bat, Kestrel, Tawny Owl, Barn Owl, Red Kite, and Merlin within 2km of the site. A full list can be obtained from BMERC.
- 4.9 There were 41 records of Great Crested Newt within 2km of the site according to the data provided by BMERC.
- 4.10 There were 29 records of bat within 2km of the site according to the data provided by BMERC.
- 4.11 There were 9 records of badger within 2km of the site and over half of those records were dead individuals found on the A41 in the dataset provided by BMERC.
- 4.12 There are two records of reptiles within 2km of the site, both records are common lizard according to the data provided by BMERC.

## 5 Site Survey

- 5.1 The site survey was undertaken by Beth England on the 13th  
 The weather conditions were considered to be appropriate to survey  
 (Table 5.1.1).

*Table 5.1.1: Weather conditions at the time of survey.*

Date of site survey: 13/10/2023	
Temperature	15c
Wind	5m ph
Precipitation	0%

\*Data from BBC Weather.




## PHASE 1 HABITAT SURVEY

5.2 The habitats presented consist of the following UK HAB categories:

- Hardstanding
- Buildings & Hardstanding
- Line of Trees
- Modified Grassland

5.3 A description of habitat present along with target notes is shown in Table 5.3.1. The location of habitats is shown in the Site Habitat Map, Appendix 4.

*Table 5.3.1: Description of habitats present on-site (please also see the Site Habitat Map, Appendix 4).*

Habitats and Target Notes	Description	Supporting Photo
Line of Trees	There is a line of lawson cypress trees c. 12m in height on the eastern boundary. The line foll around the edge of the adjacent tennis cou	 <p style="text-align: center;">Photo 1</p>

Buildings and Hardstanding



The building comprises a metal agricultural barn with a steel frame and corrugated, pitched roof. There are Perspex skylights within the roof. No evidence of bats was recorded during the PRA. No roosting opportunities are present. The building was classed as having negligible suitability.




Photo 2



Photo 3

<p>Hardstanding</p>	<p>Mostly hardcore hardstanding with some ephemeral vegetation growing through in places including bristly oxtongue, annual meadow grass, false oat-grass, spear thistle, Yorkshire fog, common nettle, broad-leaved dock, greater plantain, dandelion, sow thistle species, small nettle, cleavers and nipplewort Extensive areas of stored materials around th building. Southern entranceway is tarmac.</p>	 <p>Photo 4</p>  <p>Photo 5</p>
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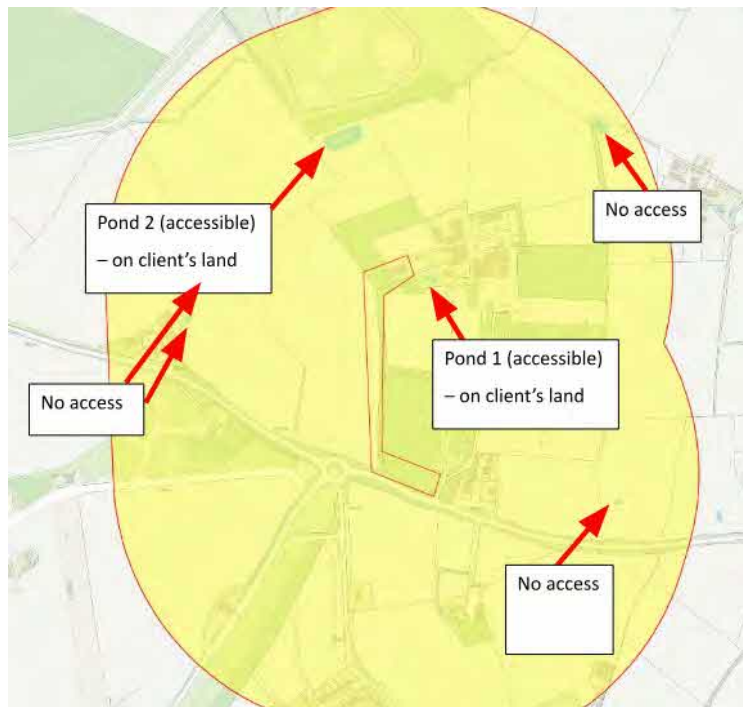
<p>Modified Grassland</p>	<p>To the south of the building is a large area of modified grassland. The site boundary forms path through the grassland, with adjacent woodland on either side. The grassland is mostly mowed and has a short sward, it is species poor. The grassland comprises frequent perennial ryegrass and annual meadow grass. Herbs also present: occasional sow thistle species, geranium species, creeping buttercup, broad-leaved dock, greater plantain, cow parsley, common chickweed, borage species and spear thistle. There are occasional areas with frequent cleavers and small nettle.</p>	 <p>Photo 6</p>
<p>Adjacent Woodland</p>	<p>There are several blocks of off-site formally planted woodland adjacent to the proposed entrance driveway. The woodland was planted 20 years ago, there is very little ground flora and no understorey. Tree species present include oak, cypress, sycamore, hazel, lime species and alder. Each woodland block differs slightly regarding tree composition.</p>	 <p>Photo 7</p>

## PRELIMINARY BAT ROOST ASSESSMENT (PRA)

5.4 There were no built structures on site capable of supporting roosting bats.

## HSI ASSESSMENT

5.5 There were five ponds within 500m of the site but only two could be accessed. HSI assessments were carried out on ponds P1 and P2 during the site survey.



	Pond 1	Pond 2
Location	A (score 1)	A (score 1)
Pond area (m2)	270 (score 0.6)	2 (score 0.8)
Permanence	Rarely dries (score 1)	Never dries (score 0.9)
Water quality	Moderate (score 0.67)	Moderate (score 0.67)
Shade (%)	95 (score 0.3)	10 (score 1)
Waterfowl presence	Absent (score 1)	Minor (score 0.67)
Fish presence	Possible (score 0.67)	Possible (score 0.67)
Pond count (within 1km)	22 (score 1)	22 (score 1)
Terrestrial habitat	Moderate (score 0.67)	Moderate (score 0.67)
Macrophytes (%)	80 (score 1)	20 (score 0.5)
Score	0.75	0.77
Pond suitability	Good	Good

## 6 Evaluation and Assessment

- 6.1 Results from the desktop study and site survey were evaluated to assess the likelihood of occurrence for protected ecological features and species potential (as per Table 2.10.1). An evaluation of the potential impacts due to the proposed development and recommendations for appropriate mitigation measures are provided in Table 6.1.1.



Table 6.1.1: Likelihood of occurrence of protected ecological features and species on-site, potential impacts due to the proposed development and recommendations for appropriate mitigation measures.

Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
Protected sites	Low.	<p>The site is not situated within, or adjacent to, any known protected sites. The site is not considered to be well connected to any known protected sites.</p> <p>Ham Home-cum-Hamgreaves Woods SSSI is located 1.99km to the NW of the site and is not linked to the site in any way. It is located within the impact zone.</p>	None.	Standard pollution prevention measures from GOV.UK should be adhered to; fuel kits are to be kept on site and fuelling of all vehicles done off-site.
Protected habitats	Negligible.	There are no protected habitats on, or directly adjacent to the site. There is a priority habitat deciduous woodland 0.1km from site, but considering the limited extent of the proposals, it is considered unlikely that works to the site will impact the woodland. Habitats on-site are not considered to be unique or of high quality within the wider locality.	None.	None required.



Protected feature / specie	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measure
Protected plant species	Negligible.	No protected plant species were observed during the site survey. Habitats on-site are not considered to be unique or of high quality to support protected plant species. However, their presence cannot be entirely discounted.	The site does not support protected plant species; thus the proposed development will not impact upon protected plant species.	None required.
Amphibians (incl. Great Crested Newts)	Low	There are records of GCN within 2km of the site. P1 and P2 were situated within 500m of the site and were considered to be well connected. These ponds returned an HSI score of good. Ponds P3-P5 are offsite and could not be accessed.	There is suitable terrestrial habitat on the fringes of the site, if present GCN could be injured, harmed or killed during the development.	eDNA analysis survey of ponds P1-P5 is to be undertaken between mid-April and mid-May. The survey must be undertaken by a Level 1 GCN Licences Worker. The survey report must identify GCN presence/absence and suitable mitigation measures (if required).
Bats (Chiroptera)	<b>Roosting bats</b>			
	Negligible	The PRA determined that a built structures on-site has negligible potential for roosting bats.	The proposed development will not result in any disturbance to suitable roosting habitats.	None required.
	<b>Foraging/Commuting bats</b>			
	Low	The site has good connectivity to high quality habitats within the wider locality and the woodland areas could be used for	Mitigation measures must be put in place to ensure that disturbance does not increase during and/or post-development.	Construction works should be limited to daylight hours (except dawn and dusk) in order to prevent disturbance to nighttime foraging activity.

Protected feature / specie	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measure
		commuting.	The proposed development will not result in any substantial habitat loss that will impact upon local populations long-term.	Post-construction, the use of artificial lighting should be limited where possible. Motion sensors on outside lighting will prevent prolonged disturbance. It is recommended that outside lighting be set on short-time (1 minute) and that the sensitivity is set to large moving objects only.
Birds	Moderate	The line of trees provides nesting opportunities but nests were observed during the site walkover.	The proposed development will not result in any loss to suitable habitat for breeding birds.	The trees should be protected from site with HERAS fencing before any works commence on-site. The fencing must be signed appropriately and outlined within the tool box talk.  Tree works (if required) should take place outside the breeding season (typically March-October).
Invertebrates	Negligible	There were no known records of protected invertebrate species within the 2km search radius. No protected invertebrate species were identified during the site survey. Habitats on-site are not considered to be unique or of high quality to support protected invertebrate species.	The site does not appear to support protected invertebrate species, thus, the proposed development is unlikely to impact upon protected invertebrate species.  The proposed development will not result in any substantial habitat loss that will impact upon local populations long-term.	None required.

Protected feature / specie	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measure
Reptiles	Negligible.	There are records of reptiles within 1km of the site. However, there is no suitable habitat on site, therefore reptiles are considered absent from site.	No negative impacts are anticipated as reptiles are considered absent.	None required.
Other terrestrial mammals (excl. bats).				
	<b>Dormice (Gliridae)</b>			
	Negligible.	There are records of dormice and previous mitigation licences within 2km of the site. However, there is no suitable habitat on site, therefore dormice are considered absent.	None.	None required.
	<b>Hedgehogs (<i>Erinaceus europaeus</i>)</b>			
Low.	There are no records of Hedgehogs 1km from the site. The introduced shrub	Construction works could result in harm to hedgehog should they enter the site	Construction works should be limited to daylight hours (excl. dawn and dusk) in order	

Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
		<p>and modified grassland provide suitable habitat. The site is well connected to suitable suburban habitats</p> <p>Hedgehogs could commute across the site to access foraging habitat.</p>	<p>during construction.</p> <p>The proposed development will not result in any substantial habitat loss that will impact upon local populations long-term.</p>	<p>to prevent disturbance to night time foraging activity.</p> <p>During hibernation season (October to March), any brush piles created should be retained to ensure hibernating hedgehogs are not harmed. If removal is unavoidable, the piles must be carefully checked before burning.</p> <p>Any trenches or other excavations left open overnight should either be well covered or provided with an escape ramp (comprised of a sloped side or wooden plank reaching up to ground level or slightly above), to allow any hedgehogs that fall in to escape.</p>
	<b>Common and widespread mammals</b>			
	Moderate	No evidence of mammal activity was recorded on site but mammals could commute across the site.	<p>The proposed development will not result in a substantial habitat loss that will impact upon local populations long-term.</p> <p>Mitigation measures must be put in place to minimise disturbance during the</p>	<p>Construction works should be limited to daylight hours in order to prevent disturbance to night time foraging activity.</p> <p>Any trenches or other excavations left open overnight should either be</p>

Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
			construction phase.	<p>well covered or provided with an escape ramp (comprised of a sloped side or wooden plank reaching up to ground level or slightly above), to allow any wildlife that falls to escape.</p> <p>Any newly built boundary features should incorporate 'wildlife gaps' (comprised of a 13x13cm gap at the base of the feature), to allow wildlife to pass through.</p>
Invasive plant species	Low.	No invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were found during the survey. As there were seasonal constraints to plant identification, it is possible that invasive plant species are present and have yet to be identified.	Invasive plant species have the potential to impact protected species and habitats	If invasive plant species are found, it is recommended to consider appropriate methods of removal.

## 7 Biodiversity Enhancement

- 7.1 The development should be used as an opportunity for biodiversity by creating new opportunities for wildlife.

### BIRDS

- 7.3 It is recommended to place two new bird boxes on-site.
- 7.4 A traditional nest box should be placed 3 metres above ground level in an area of low disturbance. The box should be sheltered away from prevalent weather conditions, commonly associated within the UK, such as strong sunlight, prevailing winds and rain.
- 7.5 An open-box/balcony nest box is preferred by larger bird species. As these nest boxes are more susceptible to predation, it is recommended that open-nest boxes be placed in areas of low/tolerable human disturbance, which will deter predators.

### INVERTEBRATES

- 7.6 Two bee bricks are to be incorporated into the proposed dwelling. Alternatively, it is recommended to install invertebrate boxes on-site. The boxes should be suitable for solitary bees.
- 7.7 Nectar-rich wildflowers should be planted within close proximity to the bee bricks/invertebrates boxes to create new opportunities for pollinators.
- 7.8 Fruit trees make ideal habitat for many invertebrate species. Thus, it is recommended to plant new garden ornamental fruit trees on-site. For example, Crab Apple (*Malus sylvestris*), Wild Cherry (*Prunus avium*) and Common Pear (*Pyrus communis*).

## 8 Conclusions

- 8.1 The site at Upper Barn Farm is to be redeveloped with the demolition of the agricultural building and replacement with a residential dwelling.
- 8.2 The development will result in the loss of a building, some modified grassland and some hardstanding.

### ECOLOGICAL CONSTRAINTS

- 8.3 Development proposals must have regard for protected species identified as potentially occurring on, or near to, the site (e.g., amphibians, birds, terrestrial mammals, and reptiles). Mitigation measures to protect these species have been produced within this report to ensure that the proposed works comply with relevant UK legislation.
- 8.4 There are five ponds within the influencing distance of the proposals. Only two ponds could be assessed using the HSI methodology during the PEA walkover survey due to access constraints. Ponds P1 and P2 returned a score of 'good' and therefore further survey work is required to prove the absence (or presence) of Great Crested Newts which are known to be present in the local area.
- 8.5 Further mitigation measures have been outlined within the report to ensure that protected species are not impacted by the development. Ecological Clerk of Works (ECoW) supervision will be required throughout the construction phase to ensure that the recommended mitigation measures are implemented appropriately.

### MITIGATION STRATEGIES

- 8.7 The five ponds will require eDNA testing from April next year, should the tests return a positive result, population assessment surveys will be required.
- 8.8 A tool box talk should be given to all relevant personal by a suitable qualified ecologist before any works commence on-site to outline ecological constraints and the required mitigation measures.
- 8.9 Tree works (if required) should take place outside the breeding season (typically March-October) or once a suitability qualified ecologist has inspected the trees for breeding birds and confirmed that there are no active nests.
- 8.10 Construction works should be limited to daylight hours (excl. dawn and dusk) in order to prevent disturbance to nighttime foraging activity.

- 8.11 Any trenches or other excavations left open overnight should be covered to deter Badgers from entering. If this is not possible, any trenches or other excavations left open overnight should either be provided with an escape ramp (comprised of a sloped side or wooden plank reaching up to ground level or slightly above), to allow any wildlife that falls in to escape.
- 8.12 Any necessary excavation of animal burrows should be done carefully to avoid unnecessary suffering (such as crushing or asphyxiation).
- 8.13 Post-construction, the use of artificial lighting should be limited where possible. Motion sensors on outside lighting will prevent prolonged disturbance. It is recommended that outside lighting be set on short-timers (1 minute) and that the sensitivity is set to large moving objects only.

## SUMMARY

- 8.14 Subject to the completion of the required newt surveys and the implementation of the recommended mitigation measures, the proposed development is unlikely to have a significant ecological impact.
- 8.15 If the development timeline does not allow for eDNA assessments to be carried out next year, Natural England's District Level Licensing Scheme provides an alternative to the traditional survey route.

<https://www.gov.uk/government/publications/great-crested-newts-district-level-licensing-schemes-for-developers>



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## 10 Limitations

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Matt Harmsworth  
Lead Consultant

MW Harmsworth



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Checked by: Rachel Blood MSc

## Appendix 1: Site Location and Assessment Boundary

Figure A1.1: Extract from DEFRA MAGIC showing the assessment boundary.



MAGIC, 2023.

## Appendix 2: Desktop Study

\*Data from DEFRA.

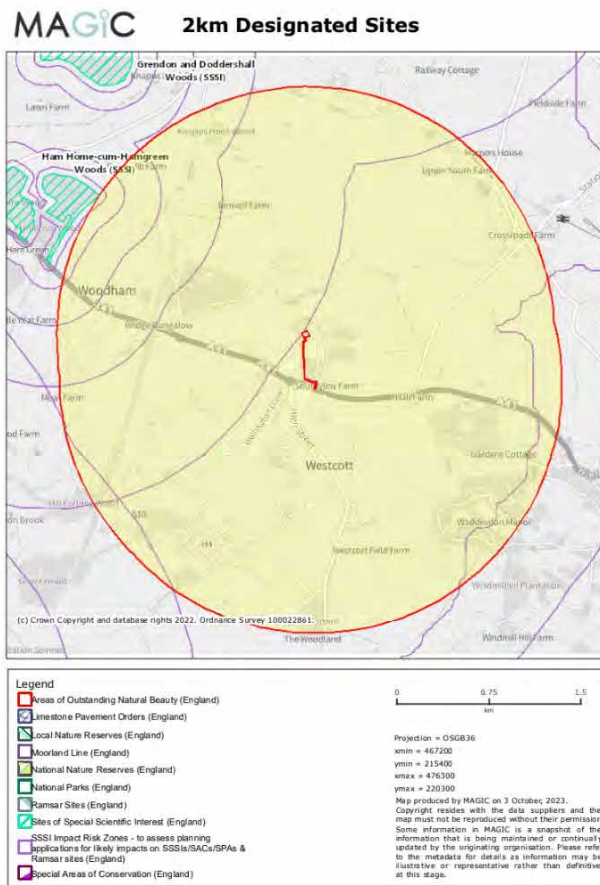


Figure A2.1: Location of designated sites situated within a 2km search radius of the site.

\*Data from DEFRA.

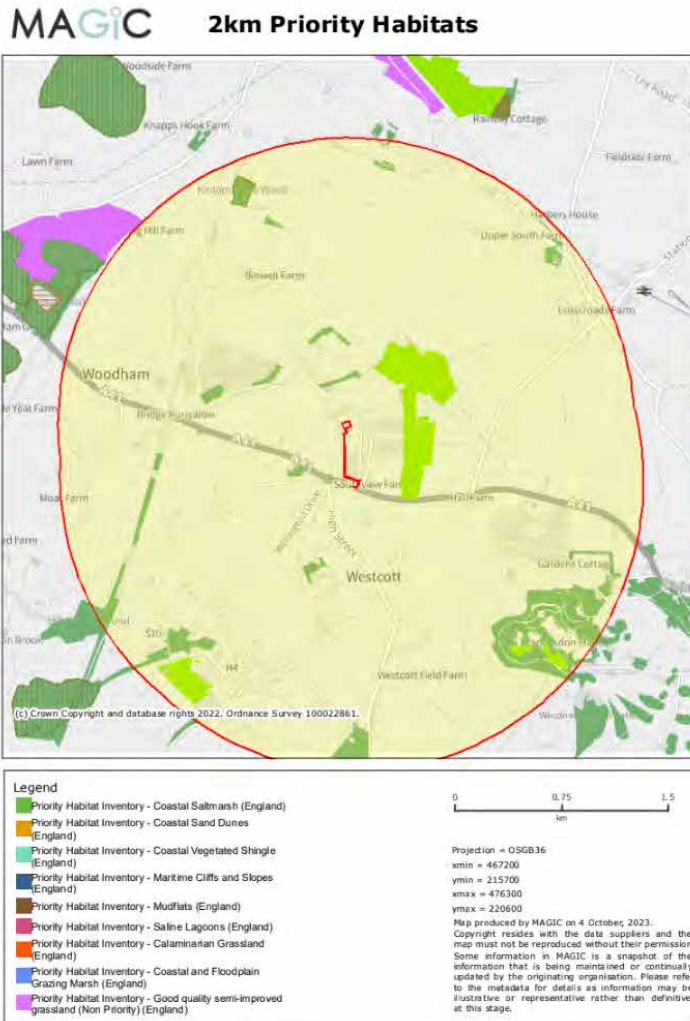


Figure A2.2: Priority habitats formerly mapped within a 2km search radius of the site..

\*Data from Bing Maps

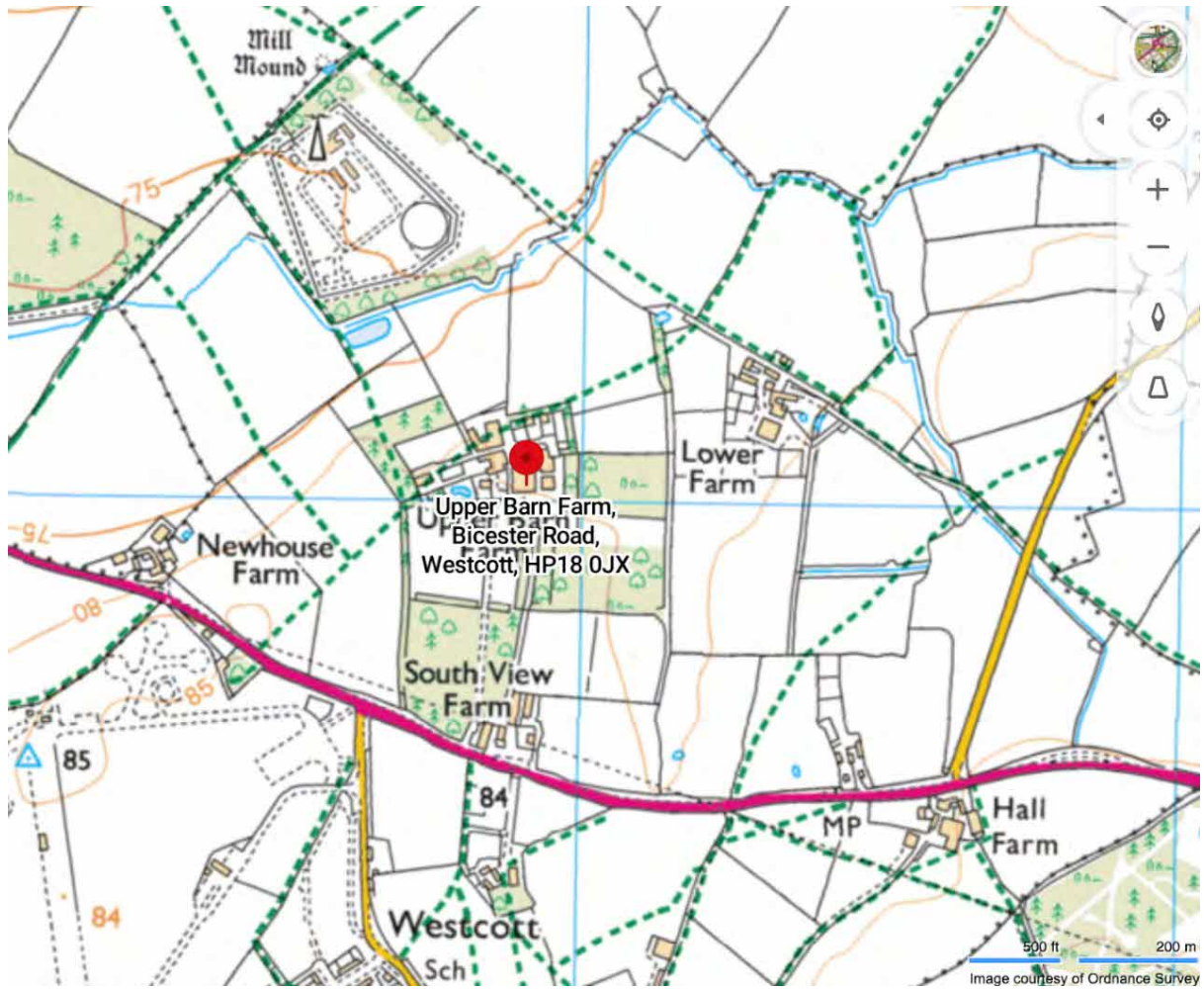


Figure A2.3: Standing water bodies formerly mapped within a 500m search radius of the site.

## Appendix 3: Site Maps

A3.1 The Site Habitat Map was produced in accordance with the  
Classification Manual (Butcher et al., 2020).





## Legend

-  Site boundary
-  Modified grassland
-  Building
-  Other developed land
-  Line of trees

## Site Name:

Upper Barn Farm, Westcott  
(SP7174118035)

## Map Title:

Preliminary Ecological Appraisal  
Habitat Map

## Client Name: Michael Crisp

**Date: 30/10/2023**

Drawn by Beth England on behalf  
of ROAVR Group

Map Scale: 1:4000

Imagery @2023 CNES/Airbus, Getmapping  
plc, Infoterra Ltd & Bluesky, Maxar  
Technologies, Map data @2023